ISO 9001 CERTIFIED THE ELECTRIC MATERIALS CO.
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A UNITED STARS CO.

TEMCO ALLOY C21000

TECHNICAL DATA SHEET

COMMON USES: TEMCO Alloy C21000 has been specifically developed for rotor bar applications. Close control of the chemistry, including trace elements, at our in-house casting facility allows us to control the electrical properties within a very narrow range. This insures our customers the same electrical properties each time they order. Consult our Sales Department to discuss your specific application.

CHEMISTRY

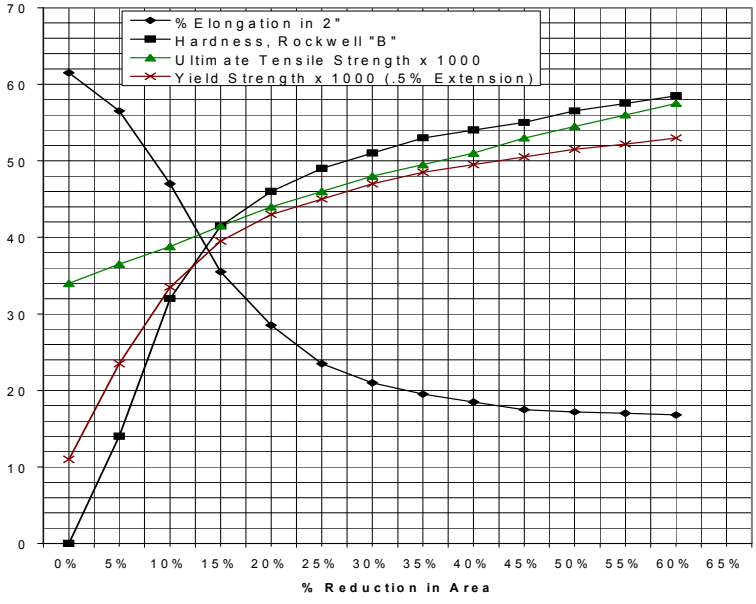
ELEMENT	NOMINAL %	RANGE %
Copper	95	94 – 96
Zinc	5	Remainder
Lead	--	.03 max.
Iron	--	.05 max.

TYPICAL PROPERTIES

TEMPER	TENSILE STRENGTH ksi (MPa)	YIELD STRENGTH* ksi (MPa)	ELONGATION %	HARDNESS ROCKWELL
Annealed (061)	34 (235)	11 (75)	62	RF 35
Ho1 (10%)	38 (260)	33 (225)	46	RB 33
Ho2 (20%)	44 (300)	43 (295)	28	RB 46
Ho4 (36%)	50 (345)	49 (340)	19	RB 53

*0.5 % EXTENSION UNDER LOAD

CAPABILITY FOR BEING COLD WORKED	EXCELLENT
CAPABILITY FOR BEING HOT WORKED	GOOD
HOT WORKING TEMPERATURE	1400° - 1600° F 750° - 875° C
ANNEALING TEMPERATURE	800° - 1450° F 425° - 800° C



SOFT SOLDERING	EXCELLENT
SILVER ALLOY BRAZING	EXCELLENT
OXYACETYLENE WELDING	GOOD
COATED METAL ARC WELDING	NOT RECOMMENDED
RESISTANCE WELDING	NOT RECOMMENDED

MISCELLANEOUS INFORMATION:

MACHINEABILITY RATE* 20
*Free Machining Brass = 100

CONDUCTIVITY 56 % ± 2 % IACS @ 68° F

DENSITY .320 lb/cu in (8.86 gm/cu cm @ 20° C)

NEAREST APPLICABLE ASTM SPEC: *B36, B134*

RIGHT THE FIRST TIME – ON TIME – EVERY TIME *7/01 pjs*